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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,024	11/19/2003	Arthur W. Wang	PD-990099A	8799

7590 01/27/2006
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EXAMINER

VUONG, QUOCHIE B

ART UNIT PAPER NUMBER

2685

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/718,024	Applicant(s) WANG, ARTHUR W.	
	Examiner Quochien B. Vuong	Art Unit 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/19/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-6, drawn to system noise and interference monitoring, classified in class 455, subclass 67.11.
 - II. Claim 7, drawn to channel allocation based on service quality, classified in class 455, subclass 452.2.
2. The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and group II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group I has separate utility such as reducing system noise and interference. See MPEP § 806.05(d).
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
5. During a telephone conversation with Applicant's representative Ms. Georgann Grunebach on 01/17/2006 a provisional election was made without traverse to

prosecute the invention of Group II, claim 7. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-6 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Information Disclosure Statement

6. The information disclosure statement (IDS) submitted on 11/19/2003 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedeman (US 5,303,286) in view of Diekelman (US 5,612,701).

Regarding claim 7, Wiedeman (figure 1) discloses a system for providing broadband access to a communication service to user terminals, comprising: a network of satellites (22), each satellite having: at least one communication antenna for generating at least one beam cluster including a plurality of proximally disposed communication beams, and a plurality of gateway nodes (12, 14,16,18), each gateway

node associated with the user terminals serviced by the beam cluster, each gateway node for forwarding messages received from at least one of the user terminals serviced by the beam cluster via the network of satellites to the communication service, and for forwarding messages received from the communication service to at least one of the user terminals serviced by the beam cluster via the network of satellites (column 4, line 60 – column 5, line 59). Wiedeman does not specifically disclose the communication beams are steerable, and a flexible channelizer for dynamically directing the steerable communication beams according to user terminal communication service demands. However, Diekelman discloses satellite communication system with steerable communication beams, and a flexible channelizer for dynamically directing the steerable communication beams according to user terminal communication service demands (column 6-47; and figure 4). Therefore, it would have been obvious for one having ordinary skill in the art at the time the invention was made to adapt the steerable communication beams and the flexible channelizer for dynamically directing the steerable communication beams of Diekelman to the system of Wiedeman in order to provide better service to high demand and conserve energy as suggested by Diekelman (column 4, lines 37-47).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wokurka (US 5,206,658) discloses multiple beam antenna system.

Natarajan et al. (US 5,790,070) disclose network and method for controlling steerable beams.

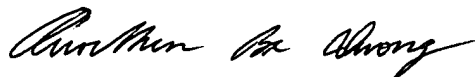
Noreils et al (US 6,259,913) disclose method of allocating links between a set of areas and a set of satellites.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B. Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quochien B. Vuong
Jan. 18, 2006.



QUOCHIE B. VUONG
PRIMARY EXAMINER